

**NATURAL RESOURCES CONSERVATION SERVICE
NEW JERSEY
CONSERVATION PRACTICE STANDARD**

USE EXCLUSION

(Ac.)

CODE 472

DEFINITION

Excluding animals, people, or vehicles from an area.

PURPOSE

To prevent, restrict, or control access to an area to maintain or improve the quantity and quality of natural resources or minimize liability and human health concerns.

CONDITIONS WHERE PRACTICE APPLIES

In areas where vegetative establishment and maintenance, soil condition, water or air quality, and wildlife or aesthetic values need to be protected. This practice is also applicable in areas where human and animal health and safety hazards are present.

CRITERIA

Barriers must be adequate to prevent, restrict, or control use by targeted vehicles, animals, or people, and not be a safety hazard.

Barrier life must be adequate for the intended purpose.

Timing and exclusion periods must be described to accomplish intended purpose.

To prevent accidents associated with the use of vehicles, (including recreational) barriers associated with roads and trails shall be adequately marked to safeguard human safety and minimize the risk of liability. Comply with applicable federal, state, and local laws and regulations during the installation, operation, and maintenance of this practice.

Barriers may consist of either natural and/or artificial structures such as logs, vegetation,

earth fill, boulders, fences, gates, or signs. (See Fence Standard 382.) Table 1 gives suggested vegetation to plant to exclude people.

ADDITIONAL CRITERIA FOR LIVESTOCK EXCLUSION

Livestock shall be permanently excluded from areas where woodland production, and/or fish and wildlife habitat the primary goals.

On areas damaged by overgrazing and/or soil compaction, exclusion shall last as long as necessary in order to promote forage health, growth, under-story vegetation, and reduce soil compaction. This may take several years.

Wet areas and areas composed of soils susceptible to critical erosion shall be permanently protected.

Livestock should be excluded from all streams, especially those that have been identified as polluted with high counts of fecal coliform bacteria or streams and riparian areas that serve as municipal or domestic water supplies.

Refer to the Riparian Forest Buffer Standard 391 for adequate buffer widths for waterbodies for given buffer purposes.

Livestock may also be excluded from recreational areas to meet environmental, aesthetic, or recreational goals.

ADDITIONAL CRITERIA FOR CRITICAL AREAS

Conservation practice standards are reviewed periodically and updated as needed. The current version of this standard is available on our web site at:
<http://www.nrcs.usda.gov/technical/efotg>

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For critical area treatments, exclusion will last two years from date of establishment or until vegetation becomes well established.

On areas where ground cover is not adequate to prevent soil erosion, the time may vary from a minimum of one year to several years.

ADDITIONAL CRITERIA FOR WILDLIFE EXCLUSION

Intensive deer browsing or rubbing often kills newly planted tree seedlings and saplings. Standard fences or electrical fences, if properly planned and installed, can prevent this by excluding deer. Livestock type fences must be at least eight feet tall. Electric fence does not need to be this tall as deer first try to go through the fence. See Rutgers Cooperative Extension Fact Sheet Number FS888 "Portable Electric Fencing for Preventing Wildlife Damage". Wildlife exclusion methods are also discussed in the Riparian Forest Buffer Standard 391.

CONSIDERATIONS

Planners should consider liability to the planning agency or the landuser.

Assess potential landowner and user liability before installing barriers.

Public use may be an issue in areas where public right of access has previously been established by past use and law.

Barrier type and design should take into account impacts of the barrier to wildlife health and animal movement.

Where a barrier is placed around an area with a wildfire hazard, provide access to the area for fire control.

Consider the effects of use exclusion practice on water quantity and water quality.

Consider the need of livestock for shade by allowing access to small portions of woodland.

PLANS AND SPECIFICATIONS

Specifications for applying this practice shall be prepared for each site and recorded using an approved format and/or narrative statements in the conservation plan, or other acceptable documentation.

Specifications will include what is to be excluded, and the period, primary purpose(s), and method of exclusion.

OPERATION AND MAINTAINENCE

Barriers will be periodically inspected to verify that the barriers are meeting their designed purpose(s). Repair barriers as needed.

REFERENCES

1. Dirr, Micheal, Manual of Woody Plants, Champaign, Illinois Stipes Publishing Company (1977)
2. NRCS, Virginia Field Office Technical Guide, Section IV.
3. NRCS, New Jersey Field Office Technical Guide, Section IV
4. Hough, Mary New Jersey Wild Plants Harmony, NJ Harmony Press (1983)

TABLE 1 : Selected List of Trees and Shrubs for Use Exclusion Plantings

| Plant Names | Plant Hardiness Zones ^{1/} | Geographic Distribution in New Jersey ^{1/} | Soil Drain-age Class ^{2/} | Average Height/ Width at 20 Years | Growth Rate | Remarks |
|--|-------------------------------------|---|------------------------------------|-----------------------------------|-------------|---|
| EVERGREEN TREES | | | | | | |
| ARBORVITAE <i>Thuja occidentalis</i> | All | Native to North Jersey | W - P | Height = 25 ft. Width = 10 | Slow | Frequently planted statewide as an ornamental. Prefers moist, well-drained soil, but tolerates a wide range of conditions. Prone to bagworms |
| CEDAR, EASTERN RED <i>Juniperus virginiana</i> | All | Throughout state | W - SP | Height = 20 ft. Width = | Slow | Should not be planted near apple orchards; alternate host of cedar-apple rust |
| CYPRESS, LEYLAND <i>X Cupressocyparis leylandii</i> | 6a, 6b, 7a, 7b | Introduced; This is a hybrid of <i>Cupressus macrocarpa</i> and <i>Chamaecyparis nootkatensis</i> . | W - SP | Height = 40 ft. Width = 20 | Fast | Adaptable to adverse sites; growth is best on good sites. Prone to bagworms, canker, and windthrow. Use in multiple-row plantings to minimize windthrow |
| FIR, WHITE <i>Abies concolor</i> | All | No, native to Western US | E - SP | Height = 25 ft. Width = 15 ft. | Moder-ate | Few insect or disease problems. |
| | | | | | | |

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| EVERGREEN TREES (continued) | | | | | | |
| HOLLY, AMERICAN <i>Ilex opaca</i> | 6a, 6b, 7a, 7b | Mostly Coastal Plain. | W - P | Height = 20 ft. Width = 15 ft. | Slow | Need male and female plants for fruit production. Shade tolerant. Being tested for planting near poultry house tunnel fans, but is very slow-growing |
| JUNIPER CHINESE <i>Juniperus chinensis</i> | All | No | W – SP | 25 feet | slow | Tree 50 to 60 feet in height, width 15 to 20 feet when mature. Many cultivars, which vary widely in height and width. Very Prickly. |
| PINE, JAPANESE BLACK <i>Pinus thunbergii</i> | All | Introduced; not native to U.S. | E – MW | Height = 30 ft. Width = 20 ft. | Fast | Salt tolerant. Often planted in seashore communities. Recent insect problems. |
| PINE, WHITE <i>Pinus strobus</i> | All | Throughout the state, but may not be native to Pine Barrens | W - MW | Height = 40 ft. Width = 25 ft. | Fast | Frequently planted statewide as an ornamental. Does not tolerate much pollution |
| SPRUCE, NORWAY <i>Picea abies</i> | All | Introduced; not native to U.S. | W - MW | Height = 35 ft. Width = 20 ft. | Fast | Fast growth rate when young, slows down with age. Prefers moderately moist, well-drained soil. Does not tolerate hot, dry, or air pollution. |

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|---|-------------------------------------|---|------------------------------------|-----------------------------------|-------------|---|
| DECIDUOUS TREES | | | | | | |
| HAWTHORN, WASHINGTON <i>Crataegus phaeopyrrum</i> | All | Rare plant of North Jersey | W – P | Height = 20 ft. Width = 15 ft. | Moderate | Broadly columnar small dense thorny tree . Maximum height 30 feet. Showy flower in June, Persistent fall and winter fruit. Fall colors. Excellent for screen, border, hedges. Good for wildlife. |
| SHRUBS | | | | | | |
| ARROWWOOD <i>Viburnum dentatum</i> | All | Statewide. | W - P | Height = 10 ft Width = 8 ft. | Fast | Suckers freely. White flowers, bluish-black berries. Understory shrub. |
| BAYBERRY, NORTHERN <i>Morella pensylvanica</i> (formerly <i>Myrica pensylvanica</i>) | 6b, 7a, 7b | Statewide | W - SP | Height = 10 ft Width = 8 ft. | Moderate | Need male and female plants for fruit production. Salt tolerant (0-20 ppt.) Suckers to form colonies. |
| BEACHPLUM <i>Prunus maritima</i> | 6b, 7a, 7b | Along the coast | E – SP | Height = 12 ft. Width = . | Moderate | Does well along the coast |

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| SHRUBS (continued) | | | | | | |
| DOGWOOD, REDOSIER <i>Cornus sericea</i> | All | Mostly North Jersey. | MW - P | Height = 8 ft. Width = 6 ft. | Fast | Attractive red stem color. White flowers and fruit. |
| DOGWOOD, SILKY <i>Cornus amomum</i> | All | Statewide, though rarely in the pine barrens | MW - P | Height = 10 ft Width = 6 ft.. | Fast | Produces fruit at 3-5 years of age. White flowers with blue berries. Prefers some shade. |
| FIRETHORN <i>Pyracanthus coccinea</i> | All | Not native | MW - SP | Height = 15 ft. Width = 7 ft. | Moder-ate | Attractive orange berries in fall. Thorny bush. Best fruit production in full sun. |

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| SHRUBS (continued) | | | | | | |
| HOLLY, NELLIE STEVENS <i>Ilex</i> x "NELLIE R. STEVENS" | Zones 6 & 7 | No, hybrid of <i>I. cornuta</i> and <i>I. aquifolium</i> , | W- SP | Height = 30' | Moderate | Large shrub to small pyramidal tree. Grows faster than American Holly. |
| VIRGINIA ROSE <i>Rose virginiana</i> | All | Throughout | EW – P | Height = 5 feet Width = 4 feet | Moderate | Will form a hedge. Attractive native rose. |
| YEW <i>Taxus canadensis</i> | All | North Jersey above terminal moraine | W - SP | Height = 4 ft. width = 6 | Slow | Prefers cool, shaded sites. |

TABLE 1 NOTES:

1. The **Plant Hardiness Zones** designate where a species can be successfully planted in New Jersey, while the **Geographic Distribution** describes where the species usually occurs under natural conditions.
2. **Soil Drainage Class** (refer to the county soil survey for further information):
E - Excessively Drained; W - Well Drained; MW - Moderately Well Drained; SP - Somewhat Poorly Drained; P - Poorly Drained.